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RS 1651/058  
OCT 22 1958

GOLDSBORO REVISITED

or

HOW I LEARNED TO MISTRUST THE H-BOMB

or

TO SET THE RECORD STRAIGHT (N) *Spore*

RS 1651/058

On page 127 of his book, "Kill and Overkill," Dr. Ralph Lapp, a prominent physicist, writer and industrial consultant, states:

The Report

"In one of these incidents, a B-52 bomber had to jettison a 24 megaton bomb over North Carolina. The bomb fell in a field without exploding. The Defense Department adopted complex devices and strict rules prevent the accidental arming or firing nuclear weapons. In this case, the 24 gaton warhead was equipped with six interlocking safety mechanisms, all of which had to be triggered in sequence to explode the bomb. When Air Force experts rushed to the North Carolina farm to examine the weapon after the accident, they found that five of the six interlocks had been set off by the fall! Only a single switch prevented the 24 megaton bomb from detonating and spreading fire and destruction over a wide area."

The Facts

'Twas an accident, not an incident.  
There was no jettison. The aircraft broke up in flight ~~DELETED~~ were inadvertently dropped.

They're simple, and not complex enough.

~~DELETED~~ bomb, not warhead.

Not six. The bomb had four, one of which is not effective in the air.

The sequence is not very important.

And AEC.

Yeah, accident.

One "set off" by the fall. Two rendered ineffective by aircraft breakup.

That's right - ONE! ~~DELETED~~

Yesh. It would have been bad news - in spades.

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THIS DOCUMENT CONTAINS INFORMATION AFFECTING THE NATIONAL DEFENSE OF THE UNITED STATES WITHIN THE MEANING OF THE ATOMIC ENERGY ACT, U.S.C. TITLE 42, AND IN THE INTEREST OF THE NATIONAL DEFENSE IT IS HEREBY DECLARED TO BE UNCLASSIFIED EXCEPT WHERE SHOWN OTHERWISE BY THE NATIONAL DEFENSE AGENCY

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Lapp's report lacks objectivity and accuracy. His sources of information are patently erroneous, or he chooses to misuse them for his own benefit. But the central point is correctly stated. One simple, dynamo-technology, low voltage switch stood between the United States and a major catastrophe!

There is no need to do a safety analysis of the Goldsboro caper. That was amply covered by deMontmollin and Hoagland in 1961\*. But, in today's atmosphere, one more conclusion would have been drawn. The Mk 39 Mod 2 bomb did not possess adequate safety for the airborne alert role in the B-52\*\*. Alt 197 was performed on these bombs to provide additional safety, but it only interrupted (additionally) the lines between the blach generator and the low voltage thermal battery. When the B-52 disintegrates in the air, it is likely to release the bombs in a near normal fashion\*\*\*. The unalterable conclusion is that the only effective safing device during airborne alert was the ready-safe switch, be it the MC772 (Goldsboro) or the MC1288 (Alt 197).

If a short to an "arm" line occurred in a mid-air breakup, a postulate that seems credible, the Mk 39 Mod 2 bomb could have given a nuclear burst.

\*SC-DR-81-61, Analysis of the Safety Aspects of the Mk 39 Mod 2 Bombs Involved in B-52G Crash Near Greensboro (sic), North Carolina.

\*\*The same conclusion should be drawn about present day SAC bombs, i.e., the B28FI, the B53, and the B41.

\*\*\*This characteristic was graphically demonstrated at Palomares, as well.

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